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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,082

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Kazuyuki Tateishi

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

THOMAS, ERIC W

ART UNIT

PAPER NUMBER

2831

MAIL DATE

DELIVERY MODE

03/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,082	TATEISHI ET AL.	
	Examiner	Art Unit	
	Eric Thomas	2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4, 7, 8/1, 8/4, 8/7, 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al. (US 6,510,042).

Lee et al. disclose an electrode composition body for redox capacitors comprising a conductive polymer (abstract) and an electrode (abstract).

Regarding claim 4, Lee et al. disclose the conductive polymer is prepared by electrolytic polymerization.

Regarding claim 7, Lee et al. disclose the conductive polymer is prepared by electrolytic polymerization in the presence of an organic solvent (col. 4 lines 15-30).

Regarding claims 8/1, 8/4, 8/7, Lee et al. disclose the conductive polymer is one selected from polypyrrole and polythiophene.

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Regarding claim 9, Lee et al. disclose the conductive polymer is formed on the surface of the electrode.

Regarding claim 10, Lee et al. disclose the electrode comprises carbon material (see example 1).

Regarding claim 11, Lee et al. disclose an electrode composite body for redox capacitors, comprising a conductive polymer film and an electrode.

4. Claims 1-6, 8/1-8/6, 9-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Lu et al. (US 2002/0177039).

Lu et al. disclose an electrode composition body for redox capacitors comprising a conductive polymer (example 5) and an electrode (example 5).

Regarding claim 2, Lu et al. disclose the conductive polymer comprises an ionic liquid (see example 5).

Regarding claim 3, Lu et al. disclose the conductive polymer comprises an ionic liquid, and comprises as a dopant the same anion as an anionic component contained in the ionic liquid.

Regarding claim 4, Lu et al. disclose the conductive polymer is prepared by electrolytic polymerization.

Regarding claim 5, Lu et al. disclose the conductive polymer is prepared by electrolytic polymerization in the presence of an ionic liquid (see claim 20).

Regarding claim 6, Lu et al. disclose the conductive polymer is prepared by electrolytic polymerization in the presence of an ionic liquid containing as a component at least one ion selected from (SO₃), -COO-, and BF₄-

Regarding claims 8/1, 8/2, 8/3, 8/4, 8/5, 8/6, Lu et al. disclose the conductive polymer is selected from the group consisting of polypyrrole, and polythiophene [0023].

Regarding claim 9, Lu et al. disclose the conductive polymer is carried on the surface of the electrode.

Regarding claim 10, Lu et al. disclose an electrode composite body for redox capacitors, comprising a conductive polymer film.

Regarding claim 11, Lu et al. disclose an electrode composite body for redox capacitors, comprising a conductive polymer film and an electrode.

Regarding claim 12, Lu et al. disclose the conductive polymer film has a thickness of about 75 μm (see example 5).

Regarding claim 13, Lu et al. disclose the conductive polymer film has a thickness of about 75 μm (see example 5).

Regarding claim 14, Lu et al. disclose an electrolyte for redox capacitor comprising an ionic component as an essential component.

Regarding claim 15, Lu et al. disclose a redox capacitor comprising an electrolyte containing an ionic liquid as an essential component and the electrode composite body for redox capacitors according to claim 1.

Regarding claim 16, Lu et al. disclose the ionic liquid comprises sulfonic acid anion ($-\text{SO}_3^-$), carboxylato ($-\text{CCO}-$), or BF_4^- (claim 9).

Regarding claim 17, Lu et al. disclose the ionic liquid further comprises an organic solvent [0072]-[0073].

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Regarding claim 18, Lu et al. disclose the weight ratio (A)/(B) of the organic solvent (A) to ionic liquid (B) is 5 or less (example 3).

Regarding claim 19, Lu et al. disclose the redox capacitor including at least an ionic liquid and a conductive polymer that uses all or some of oxidation-reduction of an electrode material, charge-and-discharge in the electrode double layer, and adsorption and desorption of ions on the surface of an electrode for storing-and discharging electrical energy, wherein a doping-dedoping reaction of the conductive polymer is performed in the ionic liquid solution.

Regarding claim 20, Lu et al. disclose a composite body of an electrolyte for redox capacitors comprising an ionic liquid as an essential component and electrodes used for the redox capacitor according to claim 15 that includes at least an ionic liquid and the conductive polymer and that uses a doping-dedoping reaction of the conductive polymer, wherein an anionic component contained in the ionic liquid is the same component as a part of a dopant of the conductive polymer.

Regarding claim 21, Lu et al. disclose at least one electrode comprises an electrode prepared by combining a polypyrrole film [0023].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Thomas whose telephone number is 571-272-1985. The examiner can normally be reached on Monday - Friday 5:30 AM - 2:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric Thomas/
Primary Examiner, Art Unit 2831